



National Marine Protected Areas Center

Information Exchange for Marine Educators

Archive of Workshops and Professional Development

American Museum of Natural History Online Diversity of Fishes Seminar

In partnership with the NSTA Institute, The American Museum of Natural History offers Seminars on Science, its award-winning online professional development program. A six-week course in ichthyology will be available to K-12 educators, February 16-March 28, 2004. Participants receive learning resources for use in the classroom.

<http://learn.amnh.org/welcome.php?w=NSTAIW041> .

Aquatic Ecosystems and Research Methods Teacher Workshop

The Bruce Museum of Arts and Science in Greenwich, Connecticut, in collaboration with Audubon Greenwich, is hosting a summer teacher's workshop on Aquatic Ecosystems, July 12 - July 16, 2004. The workshop will provide hands-on research experience of Long Island Sound and its watershed tributaries, including marine and fresh water environmental science. Participants will receive classroom and field activities appropriate for elementary and middle school classes.

http://www.brucemuseum.org/education/teachers_summer.php .

ARMADA Project – Research and Mentoring Experiences for Teachers

The ARMADA Project provides K-12 teachers an opportunity to actively participate in ocean science research and peer mentoring. Teachers participate in a training workshop that encompasses standards-based pedagogies, mentoring and coaching strategies, and investigations of advanced ocean science content and resources. They develop ways to bring their research experiences into their classrooms.

<http://www.armadaproject.org/overview.htm> .

Best Education Practices for Water Outreach Professionals

The University of Wisconsin Environmental Resources Center hosts *Defining Best Education Practices, Refining New Resources and Recommending Future Actions Symposium*, June 2-4, 2004, Madison, Wisconsin. Best education practices and topic-specific water outreach resources will provide a resource for natural resource and water outreach professionals.

<http://www.uwex.edu/erc/waterbeps>

Biocomplexity in Shallow-Water Hydrothermal Systems Student Workshop

National Science Foundation and the University of South Florida sponsored a student workshop, May 25-31, 2003, St. Petersburg, Florida to explore *Biocomplexity in Shallow-Water Hydrothermal Systems*.

<http://www.biocomplexity.usf.edu/index.htm>

Boeing Teacher Institute

The Aquarium of the Pacific's 2004 Boeing Teacher Institute, August 23-27, 2004, provided K-8 teacher participants an intensive introduction to the aquarium, marine biology and Southern California's diverse marine life, habitats and ecosystems. Guided tours, standards-based activities and field trips provided teachers with an up-close look at California marine life. Participants also receive a complete aquarium, including filtration and a guidebook on how to incorporate aquariums into their curriculum. John McCord at 562/951-1624 or jmccord@lbaop.org.

California Professional Development Workshops

CREEC-LA Network, a project of the California Department of Education and TreePeople, hosts an extensive search engine of California educational resources, including the following professional development opportunities: *9th annual WEFTeach* for Los Angeles-area high school teachers about water quality, Oct. 14, and *Waves, wetlands and watersheds educator workshops*, Orange County, November 5, 2003. www.creec.org, www.coastforyou.org, and www.wef.org/wefteach

Camp SEA Lab Teacher Workshop

Camp SEA Lab is a marine science camp adventure for youth ages 8-13. Science, Education, and Adventure are the focus as SEA Campers explore the marine world from the top of the watershed to the bottom of the deep sea. They hosted a free teacher workshop *From Sandy Shores to Salty Seas* on February 21, 2004. <http://www.campsealab.org/Programs/Teachers/> .

Certified Marine Investigator Training Seminar

For those place-based educators whose additional duties cover a lot of water, check out this seminar. The International Association of Marine Investigators offers its annual Certified Marine Investigator Training Seminar, February 22-25, West Palm Beach, Florida. <http://www.iamimarine.org/2004%20Seminar.htm> .

Charlotte NC SE PORT

The Southeast COSEE SouthEast Portal to Ocean Research for Teachers (SE PORT) has an Ocean Awareness Day scheduled for March 27, 2004 at the Discovery Place, Charlotte North Carolina, for North and South Carolina educators. Contact Mary Bures at maryb@discoveryplace.org .

Coastal Ecosystem Education Program

A free, one-week Coastal Ecosystem Education Program workshop offers professional training about rocky intertidal and sandy beach monitoring projects. The complimentary curriculum offers background information and activities about the ecology and oceanography of the Gulf of the Farallones National Marine Sanctuary. <http://www.farallones.org> .

Communicating Complex Biological Stories in National Parks

This workshop, March 30-31, 2004, Atlanta, Georgia (immediately preceding NSTA's Conference), focuses on communicating and designing educational programs for National Park Service biological resources. Participants will complete a pre-workshop assignment, a post-workshop product, and contribute to a publication on techniques for bringing the biological sciences to both the general public and educators.

http://www.nature.nps.gov/LearningCenters/new/biowrkshp_flyer_mar03.pdf .

Communicating for Conservation Workshops

The Ocean Project conducts day-long conservation communications workshops to bring their communications strategy directly to key staff at Partner Institutions throughout the country, including aquariums, zoos, and museums. The interactive workshops increase the capacity of staff at these institutions to effectively educate their visitors about conservation through improved exhibits, outreach, and other educational programs.

http://www.theoceanproject.org/what_we_do/communication.html

Community Biodiversity Education Partnership Program

The U.S. Fish and Wildlife Service's National Conservation Training Center will host forty formal and nonformal educators for the *Community Biodiversity Education Partnership Program* and present a training session, November 12-14, 2003 Shepherdstown, West Virginia. The program will bring educators together to explore creative ways to enhance biodiversity education locally and globally.

www.worldwildlife.org/windows/CBEPP.html

Community Culture and Sense of Place Training

The US EPA's Coastal Management Branch provided *Community Culture and Sense of Place Training*, March 10-11, 2003, Seattle, Washington. For more information about the Seattle workshop, contact trainor.theresa@epa.gov.

<http://www.trainex.org>

Cool Waters: Water Workshop for Georgia Educators

This free water workshop for Georgia educators, June 14-16, 2004, was geared toward middle school teachers. Each day of the workshop included field trips and hands on classroom activities, food, field trips, and many free resources.

<http://eeingeorgia.org/event.asp?eventID=17802> .

Dauphin Island Summer Teacher Workshops

Dauphin Island Sea Lab offers an array of summer teacher workshops. Each features hands-on learning experiences and classroom materials.

- Exploring the Florida Keys, May 30 – June 5, 2004
- Beaches, Birds & Barrier Islands, July 11-14, 2004
- Coastal Connections – Linking Watersheds to the Gulf of Mexico, July 18–22, 2004
- Grasses, Groupers & Gastropods, July 25 - 29, 2004
- Marine Application of Science and Technology, June 6-11, June 13-18, and June 20-25, 2004

<http://dhp.disl.org/teachertraining.htm> .

Designing for Distance Workshop Series

This six-part Designing for Distance workshop mentors you through the design and development of a distance learning course, and then offers methods to teach your creation to your audience. The workshop is taught entirely using distance methodologies. The workshop begins January 26, 2004.

<http://www.creative-conservation.com/Flyer2/Flyer2.htm>

Down Under, Out Yonder Workshop Update

The Flower Garden Banks National Marine Sanctuary *Down Under, Out Yonder* education workshop application workshop dates are July 10-14, 2004.

<http://www.gulfmex.org/duoy.htm> .

Education Program Evaluation

The U.S. Fish and Wildlife Service's National Conservation Training Center will host *The Education Program Evaluation* course (OUT8102), January 27-30, 2004, Shepherdstown, West Virginia. The course provides an overview of conducting evaluations for education and outreach programs and a chance to practice skills in designing and using evaluation tools for surveys, interviews, and observations.

<http://training.fws.gov/courses.html>

Education Programs For Youth; School's Out!

Education Programs For Youth; School's Out! (OUT8162) is a 3-day course offered by the U.S. Fish and Wildlife Service at the National Conservation Training Center in Shepherdstown, West Virginia. The course presents participants with the elements for designing outdoor programs for youth (e.g. after school, day and residential camps, and weekend programs) in a non-formal setting, such as wildlife refuges and parks.

<http://training.fws.gov/courses.html>

EETAP Diversity Workshops for Environmental Educators

The Environmental Education and Training Partnership (EETAP) offers professional development diversity workshops for environmental educators. The workshops explore multicultural issues as they occur in the real world of environmental education through case study discussion. Participants explore the intersection of EE and cultural diversity and identify steps that can be taken to make one's own organization and program more inclusive and culturally diverse.

http://www.eetap.org/html/new_products.php#PRODUCT_5 .

Enduring Resources for Earth Science Education

The Enduring Resources for Earth Science Education (ERESE) Teachers Workshop will be held at the Scripps Institution of Oceanography, July 11-24, 2004. The two-week summer workshop is open to middle and high school teachers who teach Earth science concepts. Participants will learn how to create Enduring Resources.

<http://earthref.org/events/ERESE/2004/> .

Environmental Concern's Wetlands Training Schedule for 2004

Environmental Concern, Inc. has posted their schedule for wetlands training for the upcoming year. In addition to advanced delineation techniques, topics include Fern and Fern Allies ID, Grasses, Sedges and Rushes, Wetland Botany for Non- Botanists, Wetland Mitigation Design. There are also plans to offer their WOW! and POW! workshops in Puerto Rico.

www.wetland.org .

Environmental Education in the Albemarle-Pamlico Sounds Region Workshop

The North Carolina Department of Environment and Natural Resources offers the 2004 Environmental Education Institute, *Environmental Education in the Albemarle-Pamlico Sounds Region*, June 6-11, 2004 in Salter Path, North Carolina. This is a free professional development opportunity for K-12 teachers to integrate Environmental

Education into North Carolina's Standard Course of Study Curriculum focusing on inquiry-based field investigations and hands-on activities. Curriculum materials are provided.

<http://www.ee.enr.state.nc.us/Institutes/APNEP%20Institute%20Info%202004.htm> .

Environmental Educators Training Program

The Environmental Educators Training Program, cooperatively presented by the Headlands Institute, the National Park Service and UC Berkeley Extension, is a residential training program for formal and nonformal educators to enhance knowledge of environmental sciences, concerns, and skills for teaching integrated, hands-on curriculum. This five-day residential course was offered July 26-30 or August 9-13, 2004, in Sausalito, California.

<http://www.yni.org/hi/educator.html> .

E-Teaching: Preparing Successful Online Instructors

E-Teaching: Preparing successful online instructors is a five-week distance delivered course designed to prepare instructors to teach distance education. It explores the differences of traditional and virtual classrooms and many of the options in between, as reported by experts in the field of e-learning. It also shows applicable techniques for effective e-teaching and common mistakes to avoid.

<http://www.creative-conservation.com/trainingopps.htm>

Expanding the Ark: The Emerging Science and Practice of Invertebrate Conservation

Of particular note to New York area students due to the special student registration rate: The American Museum of Natural History's Center for Biodiversity and Conservation, in collaboration with Conservation International, the National Parks Service, NatureServe, the U.S. Fish and Wildlife Service, and the Xerces Society, convenes a two-day symposium, March 24-25, 2004, New York City, New York, to examine the status of invertebrate biodiversity.

<http://research.amnh.org/biodiversity/symposia/expandingtheark/> .

Flower Garden Banks National Marine Sanctuary Education Workshop

K-12 educators are invited to participate in a two-part workshop, July 10-14, 2004, that concludes with a field experience in SCUBA diving in the Flower Garden Banks National Marine Sanctuary (FGBNMS). The land-based portion of the workshop includes lectures on basic coral biology, the National Marine Sanctuary Program, the FGBNMS and its current issues, and an introduction to reef fish identification.

<http://flowergarden.noaa.gov>

Fundamentals of Environmental Education

The 10-week long, on-line course provides educators with the knowledge and skills necessary to incorporate environmental education into their instruction. Participants discuss the history, definition, and goals of environmental education, develop an understanding of the professional roles and instructional methods of environmental educators, and interact with other educators from across the country.

http://www.eetap.org/html/online_ee_course.php

GIS Ocean Explorers Project in California

The Ocean Explorers project is a 3-year NSF funded project for middle and high school teachers to lead teams of teachers in the creation of lesson plans utilizing GIS

technology in the study of the Channel Islands National Marine Sanctuary. There will be 2-3 day GIS introductory workshops in LA, as well as travel to the Channel Islands for a week-long research expedition this summer.

<http://www.exploreoceans.org> .

Great Lakes Institute Teacher Workshop

Lake Michigan Federation, Indiana Dunes Environmental Learning Center, and Indiana Dunes National Lakeshore present the Great Lakes Institute Teacher Workshop, July 18-23, 2004. Teachers will spend 4 nights on board an EPA research vessel and one at the Learning Center. Materials and activities will include excerpts from the *Great Lakes In My World* curriculum. Citizen science projects will be the theme of this workshop, with activities from GLOBE, Adopt-a-Beach and the Midwest Clamwatchers projects.

<http://www.nps.gov/indu/learning/duneseducatorinstitutes.htm> .

Interdisciplinary Watershed Investigations Professional Development

Michigan Technological University Educators' Professional Development Institute Series for Teachers (grades 3-12) hosts an *Interdisciplinary Watershed Investigations Workshop*, June 20-26, 2004, Houghton, Michigan. Teachers will learn methods used in watershed assessment.

http://wupcenter.mtu.edu/teachers_professional.html .

International Leadership Institute For Biodiversity Education

World Wildlife Fund and Disney's Animal Kingdom are looking for 40 leaders to participate in the *International Leadership Institute for Biodiversity Education* to be held October 11-16, 2004, Orlando, Florida. The goal of this institute is to provide the tools to enable participants to lead, engage, and inspire others to protect biodiversity. The institute is open to leaders who have a broad reach, experience in implementing programs, and creating effective partnerships.

www.worldwildlife.org/windows/institute.cfm .

The JASON Academy Fall Session

The JASON Academy provides a 5-week online course to enhance teachers' science content background and provide the tools to help students learn more effectively. The courses use hotlinked references and provide numerous classroom applications with demonstrations and hands-on activities.

http://www.jason.org/jason_academy/jason_academy.htm

Learning Ocean Science through Ocean Exploration Workshop

Presented by Paula Keener-Chavis and Dr. Valerie Chase, this 6-hour pre-NMEA conference workshop, Sunday, July 18, 2004, provides hands-on activities from the Ocean Exploration curriculum, mixed with website connections, so that you can see the interaction between technology and classroom instruction in ocean science. Participants will receive a copy of *Learning Ocean Science through Ocean Exploration*, CDs of the Ocean Exploration website and other NOAA materials.

Contact Valerie Chase at vchase529@worldnet.att.net .

Linking the Ocean to the Classroom

This educators workshop about the Gulf of Maine, June 28-July 1, Durham, New Hampshire, explores the latest technology and methods used to study the basis of the entire marine food web, phytoplankton. Educators and scientists will discuss, plan, and generate new ways of incorporating real-time and archived ocean observation data

using an inquiry based model while still meeting the state or national standards.
<http://www.cooa.unh.edu/workshop.html> .

Louisiana Department of Wildlife & Fisheries' Teacher Workshops

Workshops are held throughout the state and offer Louisiana teaching resources to all participants. Topics range from wetland issues (one-week workshop held on a barrier island) to a migratory waterfowl workshop (3-day workshop with an air boat ride through optimal duck habitat in central LA).
<http://www.wlf.state.la.us/apps/netgear/index.asp?cn=lawlf&pid=315> .

Louisiana Universities Marine Consortium Scientist / Teacher Institute

LUMCON and the Central Gulf of Mexico - COSEE Scientist/Teacher Institute course for middle school teachers includes a five-day residence component, June 20-25, plus 6 online sessions, July 8- August 13, 2004. Learn about oceanography and spend a week developing a continuing relationship with a research scientist. Additional institutes will be held in 2004 in: Alabama, June 27-July 2, Florida, June 20-25, Louisiana, June 20-25, Mississippi, June 21-25, and Texas, June 13-18.
www.lumcon.edu/education/cosee .

Mangrove Forest Ecology, Management and Restoration Training Course

The second "Mangrove Forest Ecology, Management and Restoration Training Course," Hollywood, Florida, USA, February 23-26, 2004 was taught in conjunction with the Mangrove Action Project. The tidal hydrology of mangrove forests was a major topic during the course. The third workshop, February 21-24, 2005, will emphasize cost-effective successful mangrove management and restoration.
<http://www.mangroverestoration.com/>

Mapping Ocean Sanctuaries GIS Workshop in Georgia

A *Mapping Ocean Sanctuaries* GIS workshop, July 7-9th, 2004, Savannah, GA, included three days of hands-on instruction in Global Positioning Systems (GPS), Geographic Information Systems (GIS) technologies, and field data collection techniques. Participants receive complimentary copies of NOAA's *Exploring Data with GIS to Experience Sanctuaries* (EDGES) curriculum and ESRI's *Mapping Our World GIS Lessons for Educators* curriculum (with a 1-year educational ArcView GIS site license). Jenny Brady at jennyb@evisual.org or (800) 322-9884 x 253.

MARE Summer Leadership Institute

The MARE Program from University of California/Berkeley's Lawrence Hall of Science Offers a one-week residential summer institute, August 1-8, 2004, UC Santa Cruz campus. Participants will gain skills to help them lead a school or district in the implementation of Ocean Week or Month using MARE's whole-school ocean immersion model and K-8 science curriculum. Daily instruction will include ocean science content delivered by educators, scientists and researchers.
<http://www.lhs.berkeley.edu/MARE> .

Marine Wildlife Viewing Workshop

The 2003 *Marine Wildlife Viewing Workshop*, November 9-10, 2003, South Padre Island, Texas, provides a forum for the development of generally applicable guidelines for major types of commercial and recreational marine wildlife viewing activities. This year's program emphasizes the Gulf Coast and Greater Caribbean regions.
http://www.watchablewildlife.org/conference/marine_workshop.htm

Massachusetts Institute of Technology's OpenCourseWare

MIT's OpenCourseWare (OCW) launched its large-scale, web-based electronic publishing initiative, a free and open educational resource for faculty, students, and self-learners around the world, with the publication of approximately 500 courses. Courses include Ocean Engineering, Science Technology and Society, and Urban Studies and Planning.

<http://ocw.mit.edu/OcwWeb/index.htm>

MAST (Multicultural Students At Sea Together)—Opportunity for College Students

This on-the-water program ran from June 16-July 10, 2003 in the Chesapeake Bay. The program covered marine science, marine policy, the heritage of African Americans and Native Americans on the Chesapeake and under sail, and seamanship. They also recruited an ethnically diverse crew, including African Americans, Native Americans, Hispanic Americans, Pacific Islanders, and others.

<http://www.hamptonu.edu/science/masthomepage.htm>

MATE Center Faculty Development Institutes

The Marine Advanced Technology Education (MATE) Center announces two faculty development institutes for summer 2004:

- Building Remotely Operated Vehicles (ROVs), July 1 - July 9, 2004
- GIS and Marine Science: Using GIS to model marine habitats, July 11-17, 2004.

Educators interested in organizing future workshops or regional student ROV competitions to feed into the national competition can participate in an optional day.

<http://www.marinetech.org/education/institutes.php> .

National Teachers Enhancement Network

The National Teachers Enhancement Network (NTEN), delivers teaching resources and professional development opportunities through the Internet directly to K-12 science teachers. University scientists, engineers, mathematicians, and science educators teach NTEN's graduate courses. Educators access electronic teacher resources, discuss issues with other educators, and participate in high-quality graduate tele-computing courses, including the *Global Warming, Climate Change and our Environment* course.

<http://www.scienceteacher.org/default.htm> .

New Jersey Teach at the Beach

The New Jersey Marine Education Association announces *Teach At The Beach* in Camden, New Jersey, May 14, 2004. The workshops and activities are designed to provide educators of all grades and disciplines with ideas, resources, lesson plans and programs dedicated to utilizing marine and aquatic environments as a background to classroom teaching.

<http://hometown.aol.com/newjerseymea/register.html> .

Professional Development in Georgia

The Georgia Youth Science and Technology Center provides professional development for Georgia's educators, including workshops and excursion classes that involve travel to unique areas of the globe. Upcoming training includes:

- Changes in Latitudes: A Study of the Ecosystems of the Florida Keys
- Sapelo Island Excursion: Introduction to the Coastal Ecology of Sapelo Island
- Cumberland Island

<http://www.spsu.edu/gystc/events.html> .

Professional Development Programming for K-12 Teachers Available On-Line

Annenberg/CPB, a partnership between The Annenberg Foundation and the Corporation for Public Broadcasting, uses media and telecommunications to advance teaching in American schools. The partnership funds and distributes educational video programs with coordinated Web and print materials for the professional development of K-12 teachers, for both course content and teaching methods.

www.learner.org

Project Design and Evaluation Workshop

NOAA Coastal Services Center offers a three-day *Project Design and Evaluation Course* in the Charlotte Harbor National Estuary Program study area, December 8-10, 2003, Punta Gorda, Florida. The course provides coastal resource management extension and education professionals with the knowledge, skills and tools to design and implement projects that have measurable impacts on the audience they want to reach.

www.CharlotteHarborNEP.org

Project Design and Evaluation Workshop

A Project Design and Evaluation Workshop, February 17-19, 2004, Fairhope, AL, will be hosted by Weeks Bay National Estuarine Research Reserve. The workshop is designed to provide coastal educators in the Southeastern U.S. with the knowledge, skills, and tools to design and implement projects that have measurable impacts on the audience they want to reach.

tsanchez@sarpc.org

Puget Sound Marine Science Education Workshop

Join a workshop to coordinate and advance the state of field-based marine science education in Puget Sound. The workshop, *Coordinating and Advancing Field-Based Marine Science Education in Puget Sound: Creating a vision for the future*, will be held March 14-15, 2004, Seattle, Washington.

<http://www.oceaninquiry.org/workshop/> .

REVEL Project 2004

The Research and Education: Volcanoes, Exploration and Life (REVEL) Project invites highly-motivated 7-12 grade science teachers who want to bring cutting-edge earth and ocean research into their classrooms to apply to the program. Through the REVEL Project, teachers are immersed in the scientific process as they explore the seafloor of the Juan de Fuca Plate in the Northeast Pacific Ocean.

<http://www.ocean.washington.edu/outreach/revel/> .

Scott Aquarium Teacher Workshops

The University of Southern Mississippi and the Scott Aquarium offer teacher workshops:

- Storm Drains: Pollution Solution workshops, March 9, and April 20, 2004
- Marine Biotechnology: The Wave of the Future, February 11 - 13, 2004
- Aquatic Nuisance Species teacher workshop, February 15 -17, 2004
- Centers for Ocean Sciences Education Excellence: Central Gulf of Mexico

(COSEE:CGOM) will sponsor

- Educators' Workshop, March 4-5, 2004
- The Wonders of Wetlands teacher workshop, April 21 - 23, 2004

shelia.brown@usm.edu or kay.baggett@usm.edu .

Sea ExChange

NMEA and the Australian based Marine Education Society of Australasia (MESA) team up to bring marine educators together for professional development experiences through Sea ExChange, a cooperative program to assist marine educators working at similar jobs and facilities to set up exchanges. The program offers three types of exchange: short-term Partner and Education Group ExChanges, and longer term Job Exchanges. http://www.mesa.edu.au/careers/sea_ExChange.asp

Seattle Aquarium's Marine Protected Areas Conference

This past August, the City of Seattle designated much of the Seattle shoreline as a no-take marine protected area. To raise general public awareness of MPA issues, the Seattle Aquarium is hosting a workshop on Puget Sound MPAs on Saturday, March 27, 2004.

Contact Leo Shaw at Leo.Shaw@Seattle.Gov

SECOSEE 2004 Ocean Leadership Institute

The SouthEast Center for Ocean Sciences Education Excellence (SouthEast COSEE) will hold the second Ocean Education Leadership Institute for middle and high school science teachers from NC, SC, and GA, June 25-July 1, 2004, Savannah, Georgia. Teachers will be introduced to ocean science research in island dynamics, physical and biological parameters of the South Atlantic Bight region, and develop and implement leadership skills necessary to share what they learn with their colleagues. <http://www.scseagrant.org/se-cosee/education.htm>

Seminars on Science: Sharks and Rays – Ecology, Classification and Evolution

The American Museum of Natural History offers this six-week summer workshop, June 28 - August 8, 2004. Key science concepts and processes covered in the course include diversity and adaptation, anatomy, fossil evidence, and data analysis. Participants will have access to Museum scientists and educators and receive teaching tools to take back to their classroom.

<http://learn.amnh.org/courses/sharks.php> .

Society for Conservation GIS Domestic Scholarship Program

The SCGIS Domestic Scholarship Program offers competitive scholarships to conservation GIS users to attend advanced GIS training courses focused on conservation applications. Scholarship funds will cover all or partial airfare, waivers for SCGIS conference related fees, as well as pre- and post-conference training. The annual ESRI User Conference is August 9 - 13, 2004, in San Diego, California. The annual SCGIS conference will be held September 27-29, 2004, in West Virginia.

<http://www.scgis.org/> .

Space Science Institute Workshops

The Space Science Institute is hosting two education workshops this spring:

- Designing Exemplary Professional Development Experiences for Educators, March 18-20, 2004, <http://halvas.space-science.org/registration/SpecialTopicSpring2004/1.asp>
- 4-Day Education Workshop for Scientists, Engineers, and E/PO Managers, April 25-28, 2004, <http://halvas.space-science.org/registration/k12spring2004/1.asp#ann>.

Stone Lab Summer Teacher Courses

F.T. Stone Laboratory, Ohio State University's Island Campus in Lake Erie, offers college credit courses to undergraduate and graduate students, educators, and outstanding high school students every summer. From Lake Erie geology to aquatic biology courses, students receive a hands-on science experience in one-day, one-week, or term courses.

<http://www.sg.ohio-state.edu/SLAB/PRINT.HTM#workshops> .

Student-Teacher Field Studies in the National Marine Sanctuaries

Funding is provided through the National Marine Sanctuary Program in partnership with the National Geographic Society Education Foundation for two student-teacher field studies in the national marine sanctuaries, Gray's Reef Marine Sanctuary in Georgia, grade 9-12, July 23-28, 2004 and the Channel Islands Marine Sanctuary in California, grade 5-8, and August 9-12, 2004.

www.ngsednet.org/profdev .

Survey of Oceanography Graduate Course Offered Via Web

Texas A&M University, College Station, offers the *Survey of Oceanography* course. All lectures, homework, and quizzes will be offered remotely. The course emphasizes problem-based learning and the use of web resources in the classroom. Modules include the role of the oceans in climate, the role of the ocean in weather, fisheries and the ocean as food source, coastal erosion, and coastal pollution.

stewart@ocean.tamu.edu

Take the Pulse of Our Changing Planet Workshop

The Mid-Atlantic Center for Ocean Science Education Excellence (MACOSEE) offers a professional development workshop for middle school science teachers in Cambridge, Maryland, July 11-17, 2004. Scientists take Earth's pulse through a network of high-tech stations called ocean observing systems. This workshop showcases these new observatories and how observatory data can enhance your science lessons.

www.macosee.net .

Teacher Seminar Research at SEA

The Sea Education Association in Woods Hole, Massachusetts, offers teachers (grades 5-9) its Teacher Seminar Research at SEA. The seminar, funded by the National Science Foundation, provides oceanographic research experience and affords the opportunity to explore the oceanic environment while learning about the scientific research process first-hand. Applications are reviewed monthly.

<http://www.sea.edu/sea2000/admission2000/teachers.htm> .

Texas A&M University's Marine Advisory Service Educator Workshops

Texas Marine Advisory Service will host two development workshops for Texas educators on the environment and natural resources in Texas and the Gulf Coast. Teachers, science curriculum specialists, and department heads working in public and private schools are encouraged to register. Training sessions for elementary school educators were June 28-30; training for secondary school educators July 7-9.

Contact lbeach@neo.tamu.edu .

Understanding Aquatic Nuisance Species and Their Terrestrial Counterparts

The Dauphin Island Sea Lab and the J.L. Scott Marine Education Center and Aquarium announce a new on-line course for March, 2004, *Understanding Aquatic Nuisance Species and Their Terrestrial Counterparts*.

www.coexploration.org/ans .

University of New Hampshire Marine Science Graduate Fellowships

Ten fellowships, coordinated by the UNH Marine Program, are offered for a summer 2004 start. They are with: the Center for Coastal and Ocean Mapping, Northeast Consortium, Cooperative Institute for Coastal and Environmental Technology (CICEET), Cooperative Institute for New England Mariculture and Fisheries, Center for Excellence in Coastal Ocean Observation and Analysis, and UNH/NOAA Joint Hydrographic Center.

<http://www.marine.unh.edu/aboutmpfellowship.html> .

Using Marine Biology to Teach Physiology and Ecology Workshops

The Institute for Biomedical Philosophy offers teacher workshops utilizing marine biology as a hook to teach physiology and ecology. These programs are open to teachers, preservice teachers, administrators, informal educators, and science educator faculty. They are based on the national science education and teaching standards with content that can be integrated across the curriculum. The workshops are scheduled right before or after the NMEA meeting in St Petersburg.

<http://www.biophi.org/pages/1/index.htm> .

Wetland Education through Maps and Aerial Photography (WETMAAP) Workshop

A free WETMAAP Workshop for teachers will be held during the week of June 21-25, 2004. The workshop will be given twice, with each session lasting 2 ½ days. Discover the functions and values of wetland habitats, learn the basics of wetland mapping, aerial photography, airborne and shuttle imagery, topographic maps, and GIS technology. Educators will learn how they can integrate wetland issues, maps, and images into their existing curriculum. Materials and resources will be provided.

<http://www.tbep.org/media/wetmaap.html> .

Whale Camp

The Whale Camp offers one, two, and three week programs for students age 10-17 and teachers or adults interested in marine biology. The courses take place on the New Brunswick, Canada, island of Grand Manan, located in the the Bay of Fundy.

Participants have the opportunity for whale encounters, Atlantic Puffin nesting colony visits, and more. There are sessions for adults and for students in July and August, 2004.

www.whalecamp.com .

Wonders of Water - National Park Service Environmental Education Training Course

This multi-certification course, July 26-30, 2004, Chattahoochee River Environmental Education Center, Alpharetta, Georgia, provides participants with certificates for Project WET, Wonders of Wetlands, EPD Adopt-A Stream, and National Park Service environmental education training. Participants receive the Project WET Curriculum and Activity Guide with 89 activities, Wow! the Wonders of Wetlands: An Educator's Guide with over 40 activities, and other lesson plans and resources.

http://www.nps.gov/chat/educational_techniques.htm .

Workshop on the Beach in the Florida Keys

During this workshop, hosted by the Institute for Biomedical Philosophy, July 10-16, 2004, Marathon Key, Florida, educators will explore national standards-based biology and ecology concepts using hands-on marine biology models. The program is open to middle and high school teachers, pre-service teachers, informal educators, and science education faculty.

<http://www.biophi.org/pages/1/index.htm>